

CONTRACT CHANGE ORDER MEMORANDUM

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TO: Pete Siegenthaler, Prin TE /			FILE: E.A. 04 - 0120F4	
FROM: Kannu Balan, Senior TE			CO-RTE-PM SF-80-13.2/13.9	
			FED. NO.	
CCO#: 156	SUPPLEMENT#: 0	Category Code: CHSA	CONTINGENCY BALANCE (incl. this change) \$63,925,431.40	
COST: \$3,000,000.00 INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: Replace Dacromet Bolts			PROJECT DESCRIPTION: CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE	
Original Contract Time: 2490 Day(s)	Time Adj. This Change: DEF Day(s)	Previously Approved CCO Time Adjustments: 227 Day(s)	Percentage Time Adjusted: (including this change) 9 %	Total # of Unreconciled Deferred Time CCO(s): (including this change) 6

THIS CHANGE ORDER PROVIDES FOR:

Replacing the Dacromet coated ASTM A490M fastener assemblies required in Sections 10-1.59, Steel Structures," and 10-1.69, Clean and Paint Structural Steel," of the Special Provisions with either uncoated or Geomet coated ASTM A490M fastener assemblies, as directed by the Engineer.

This Contract calls for the use of ASTM A490M fastener assemblies in the tower, saddles and bearings. Because A490 fasteners are subject to hydrogen embrittlement in the galvanizing process, the designers required the fasteners to be coated with Dacromet to provide the specified design life of 150 years. This coating has been used with some frequency in other industries, but only rarely in high strength structural bolts. In October 2006, OSHA issued a final rule for the Occupational Exposure to Hexavalent Chromium (Cr(VI)) establishing a Personal Exposure Limit for this toxic form of the element Chromium. Cr(VI) is an important component of the Dacromet coating system. It was anticipated that the Cr(VI) levels that existed in the operations involving Dacromet coated materials would not exceed the action levels for this rule.

However in June 2010, when ABF and Department Industrial Hygienists conducted tests for Cr(VI) levels in operations involving Dacromet coated material, it was found that the Cr(VI) levels did exceed the action levels. Due to the toxicity, extensive control measures would be necessary to protect the employees involved in installing, inspecting and testing these fastener assemblies. These practices would cause significant impacts on the efficiencies and scheduling for the Tower erection as well as health and other risks and therefore must be minimized. Subsequent to the writing of the specifications on this contract, the supplier of Dacromet coating has, developed a Cr(VI)-free coating system called Geomet. After a preliminary evaluation of the construction schedule and availability of temporary and replacement fastener assemblies, the Designer has recommended that Geomet coated A490M bolts be substituted.

Cost impacts to be compensated through this CCO include, but are not limited to, furnishing of the replacement bolts. It also includes the cost of furnishing and installing temporary black A490 bolts to allow work to proceed on the tower erection, minimizing delay of the tower erection. Costs will also be incurred to later remove and replace these temporary bolts with the permanent coated bolts.

This Change Order was discussed with the following people, who all concurred with this Change Order:

1. Brian Maroney (Deputy Toll Bridge Program Manager)
2. Rich Foley (HQ Construction, SAS Oversight)
3. Keith Hoffman (METS)
4. Bill Zanetich (OSM&I)

This work will be paid as extra work at force account until there is an agreement reached for an agreed lump sum between the Department and the Contractor. A supplemental change order will be issued to provide compensation for the remaining work once the lump sum agreement amount is determined. The Department anticipates the final cost to be much higher than the initial amount of \$3M requested in this change order. The \$3M extra work at force account will allow work to proceed and payment to be made for procurement of temporary and new permanent bolts while a lump sum is negotiated for the installation of the work. Toll Bridge Program Oversight Committee (TBPOC) approved this change order on July 29, 2010, for a value not to exceed amount of \$10M.

Consideration of a time adjustment will be deferred until completion of the work specified herein. Determination of a

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commensurate time adjustment will be made in accordance with Section 10-1.13, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)" and Section 10-1.14, "TIME-RELATED OVERHEAD" of the Special Provisions, as well as Section 8-1.07, "LIQUIDATED DAMAGES", of the Standard Specifications.

The Resident Engineer requests Head Quarters CCO Desk "Issue and Approve".

CONCURRED BY:		ESTIMATE OF COST	
Construction Engineer:	PCE, Pete Siegenthaler, Prin TE	Date	7/23/10
Bridge Engineer:	Struct Rep, Rick Morrow, Sup TE	Date	7/23/10
Project Engineer:		Date	
Project Manager:	Dep TB Proj Man, Brian Maroney	Date	9/16/10
FHWA Rep.:	HQ, Rich Foley	Date	7/23/10
Environmental:		Date	
Other (specify):	Struct Maint, Bill Zanetich, P.E.	Date	7/23/10
Other (specify):	METS, Keith Hoffman	Date	9/16/10
District Prior Approval By:	HQ, Larry Salhaney	Date	9/21/10
HQ (Issue Approve) By:		Date	
Resident Engineer's Signature:	 24 Sept 2010		
		FEDERAL PARTICIPATION <input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING	
		FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type) <input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS	
		FEDERAL FUNDING SOURCE PERCENT 	